

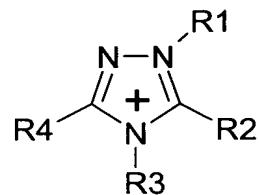
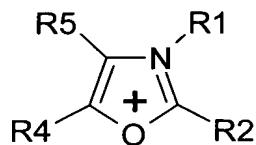
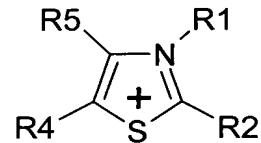
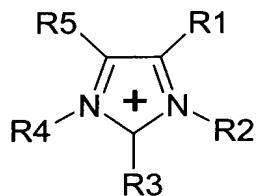
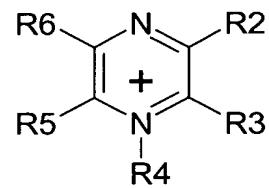
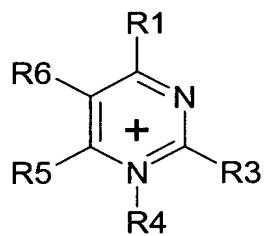
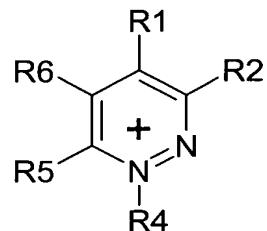
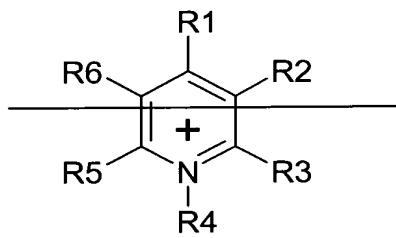
LISTING OF CLAIMS

1. (Currently amended) ~~An ionic liquid~~ A compound of the general formula



wherein:

$K^+$  is a cation selected from:

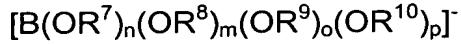


wherein

$R^1$  to  $R^6$  are identical or different and are each individually

- H,
- a halogen,
- an alkyl radical (C<sub>1</sub> to C<sub>8</sub>), which is unsubstituted, or which is partially or fully substituted by F, Cl, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub> wherein 1<n<6 and 0<x≤13
- a phenyl radical which is unsubstituted or which is partially or fully substituted by F, Cl, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub> wherein 1<n<6 and 0<x≤13, or
- one or more pairs of adjacent R<sup>1</sup> to R<sup>6</sup> can also be an alkylene or alkenylene radical and having up to 8 C atoms, wherein the radical is unsubstituted or partially or fully substituted by halogen, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub> wherein 1<n<6 and 0<x≤13

wherein A<sup>-</sup> is an anion selected from



wherein

0≤n, m, o, p≤4, and m+n+o+p=4, and

R<sup>7</sup> to R<sup>10</sup> are different or identical and are each, individually:

an aromatic ring selected from a phenyl, anthracenyl and phenanthrenyl ring, which is unsubstituted, or which is monosubstituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or halogen, or

an aromatic heterocyclic ring selected from a pyridyl, pyrazyl and pyrimidyl ring, which is unsubstituted, or which is mono-substituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or

halogen,

or

~~an alkyl radical (C<sub>1</sub> to C<sub>8</sub>), which is unsubstituted, or which is partially or fully substituted by F, Cl, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13,~~

and wherein one or more pairs of R<sup>7</sup> to R<sup>10</sup> can also form

an aromatic ring selected from a anthracenylene and phenanthrenylene ring, which is unsubstituted or an aromatic ring selected from a phenylene, naphthylene, anthracenylene and phenanthrenylene ring which is monosubstituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or halogen,

an aromatic heterocyclic ring selected from a pyridylene, pyrazylene and pyrimidylene ring, which is unsubstituted, or which is mono-substituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or halogen,

or

~~an alkylene or alkenylene radical having up to 8 C atoms and which is unsubstituted or which is partially or fully substituted by halogen, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13~~

or OR<sup>7</sup> to OR<sup>10</sup>, individually or together,

~~are an aromatic having 6 to 14 C atoms and which is a dicarboxyl, oxysulfonyl or oxy carbonyl radical, which is unsubstituted, or which is partially or fully substituted by F, Cl, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>), SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13~~

or

are aliphatic having 1 to 6 C atoms and which is a carboxyl, dicarboxyl, oxysulfonyl or oxycarbonyl radical, which is unsubstituted, or which is partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1-x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$ , wherein  $1 < n < 6$  and  $0 < x \leq 13$ .

2. **(Currently amended)** ~~An ionic liquid~~ A compound according to claim 1, wherein at least one of  $R^1$  to  $R^6$  of the cation is an alkyl radical which is unsubstituted or partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1-x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  wherein  $1 < n < 6$  and  $0 < x \leq 13$ .
3. **(Currently amended)** ~~An ionic liquid~~ A compound according to claim 1, wherein at least one of  $R^1$  to  $R^6$  of the cation is a phenyl radical which is unsubstituted or partially or fully substituted by F, Cl,  $N(C_nF_{(2n+1-x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  wherein  $1 < n < 6$  and  $0 < x \leq 13$ .
4. **((Currently amended)** ~~An ionic liquid~~ A compound according to claim 1, wherein at least a pair of  $R^1$  to  $R^6$  of the cation is an alkylene or alkenylene radical which is unsubstituted or partially or fully substituted by halogen,  $N(C_nF_{(2n+1-x)}H_x)_2$ ,  $O(C_nF_{(2n+1-x)}H_x)$ ,  $SO_2(C_nF_{(2n+1-x)}H_x)$  or  $C_nF_{(2n+1-x)}H_x$  wherein  $1 < n < 6$  and  $0 < x \leq 13$ .
5. **(Cancelled)**
6. **(Cancelled)**

7. (Currently amended) An ionic liquid A compound according to claim 1, wherein at least one of R<sup>7</sup> to R<sup>10</sup> of the anion is an aromatic ring selected from a phenyl, anthracenyl and phenanthrenyl ring, which is unsubstituted, or which is monosubstituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or by a halogen.

8.(Currently amended) An ionic liquid A compound according to claim 1, wherein at least one of R<sup>7</sup> to R<sup>10</sup> of the anion is an aromatic heterocyclic ring selected from a pyridyl, pyrazyl and pyrimidyl ring, which is unsubstituted, or which is monosubstituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or {F, Cl or Br}.

9. (Currently amended) An ionic liquid A compound according to claim 1, wherein at least one pair of R<sup>7</sup> to R<sup>10</sup> of the anion is an aromatic ring selected from an anthracenylene and phenanthrenylene ring, which is unsubstituted or a phenylene, naphthylene, anthracenylene and phenanthrenylene ring, which is monosubstituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or halogen.

10. (Currently amended) An ionic liquid A compound according to claim 1, wherein at least one pair of R<sup>7</sup> to R<sup>10</sup> of the anion is an aromatic heterocyclic ring selected from a pyridylene, pyrazylene and pyrimidylene ring, which is unsubstituted, or which is mono-substituted or polysubstituted by C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13, or by halogen.

11. (Original) An electrochemical cell comprising a cathode, an anode, a separator, and the ionic liquid of claim 1.

12. (Original) A supercapacitor comprised of at least a pair of electrodes, a separator, and the ionic liquid of claim 1.

13. (Original) An electrolyte composition comprising an ionic liquid of claim 1 and an aprotic solvent.

14. (Original) An electrolyte composition comprising an ionic liquid of claim 1 and a conductive salt.

15. (Currently amended) A method for making ~~an ionic liquid~~ a compound according to claim 1, comprising reacting a chloride salt of the formula  $K^+Cl^-$  with a lithium salt of the formula  $Li^+A^-$  within an aprotic solvent.

16. (Currently amended) ~~An ionic liquid~~ A compound according to claim 1, selected from :

1-ethyl-3-methylimidazolium bis [1,2-benzenediolato-O,O'] borate,

1-ethyl-3-methylimidazolium bis[oxalato]borate, and

1-ethyl-3-methylimidazolium bis[salicylato]borate.

17. (previously presented) A compound according to claim 16, wherein said compound is:

1-ethyl-3-methylimidazolium bis [1,2-benzenediolato-O,O'] borate.

18. (Canceled)

19. (Canceled)

20. (previously presented) A compound according to claim 16,  
wherein said compound is:  
1-ethyl-3-methylimidazolium bis[oxalato]borate.

21. (Previously presented) A compound according to claim 1,  
wherein OR<sup>7</sup> to OR<sup>10</sup>, individually or together,  
are aliphatic having 1 to 6 C atoms and which is a carboxyl, dicarboxyl,  
oxysulfonyl or oxycarbonyl radical, which is unsubstituted, or which is  
partially or fully substituted by F, Cl, N(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>)<sub>2</sub>, O(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>),  
SO<sub>2</sub>(C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>) or C<sub>n</sub>F<sub>(2n+1-x)</sub>H<sub>x</sub>, wherein 1<n<6 and 0<x≤13.

22. (Canceled)